

REMARKS

Claims 1-16 are all the claims pending in the application.

Applicant thanks the Examiner for allowing claims 13-16 and indicating that claims 6 and 12 would be allowable if rewritten in independent form. However, Applicant has not rewritten claims 6 and 12 because Applicant believes they should be allowable for at least the reasons described below. Applicant also thanks the Examiner for accepting the drawings and considering the IDS filed on December 19, 2001. Applicant also requests that the Examiner consider the IDS filed on April 7, 2005.

PRIOR ART REJECTIONS

The Examiner has rejected the claims as follows:

- Claims 1, 2, 7 and 8 under 35 U.S.C. § 102(b) as being anticipated by Aono (JP 401291540); and
- Claims 3-5 and 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Aono in view of Iwamatsu (U.S. Patent No. 6,236,263).

Applicant traverses these rejections because the cited references fail to disclose or suggest all of the claim limitations. Applicant respectfully disagrees with the Examiner's responses to Applicant's arguments in the January 10, 2005 Amendment. Therefore, Applicant incorporates by reference the arguments from the January 10, 2005. In addition, the Applicant responds as follows.

The Examiner asserts that “Aono only use [sic] one embodiment; the use of FIG. 3 and 8 is for elegance and clarity of the presentation” However, figures 3 and 8 are two separate and distinct embodiments. Aono states:

Figure 3 shows a detailed example of the demodulation circuit relating to this invention. After the modulated signals (S1, S2 in Fig. 2) received by the antenna ANT were applied to the low noise amp (LNA) 41, 51, they become intermediate frequency signals after conversion (local signal [f_R]) by the μ -IF converter [42], 52. Pages 10-11.

Figure 8 shows another specific example of a frequency variance detector in the demodulation circuit. This detector 81 includes the frequency variance $\Delta f'$ of f_{R1} , f_{R2} from Fig. 7 with the detector 31 in Fig. 4. Page 13.

Thus, in the embodiment of figure 3, the μ -IF converters use the same oscillator f_R , whereas the embodiment of figure 8 uses two separate oscillators f_{R1} , f_{R2} . The Examiner appears to implicitly concede this by stating that “the same rejection can be done by using only FIG. 8.

Regarding the Examiner’s rejection of claim 1 based on Figure 8, the Examiner asserts that first and second phase controllers limitation (claim element (e)) is met by “figure 8 blocks 65-72, 70 is the control unit.” Applicant respectfully disagrees. First, blocks 65-72 do not perform the claimed limitation of “equalizing phases of said base-band signal and said cross polarization interference cancel reference signal to each other in accordance with said phase-difference signal.” In addition, element e requires two phase controllers. Even assuming blocks 65-72 correspond to a phase controller, the Examiner has not identified a second phase controller.

Regarding claim 7, despite stating that the rejection can be done by using only figure 8, the Examiner again falls back on reliance of both figures 3 and 8 in order to support his rejection.

RESPONSE UNDER 37 C.F.R. § 1.111
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As mentioned above, the figure 3/4 embodiment does not have first and second local oscillators; rather it has one oscillator f_R . On the other hand the figure 8 embodiment has two oscillators, but does not have two phase controllers.

Regarding claims 2-5 and 8-11, they should be allowable at least based on their dependence from claims 1 or 7 for the same reasons described above.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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